

wherein said upper plate has a seating portion on which the electrical part is placed in a contacting manner, the method comprising:

132
preparing a plurality of the upper plates each having the seating portion of a different height;

selecting one of the upper plates in accordance with the electrical part to be tested so that a press-in amount L becomes a predetermined amount, the press-in amount L being a distance between the seating portion and a lower portion of a electrical part body of the electrical part when the electrical part is mounted on the contact pin and an external force is not applied on the electrical part from the press member; and

assembling the selected upper plate on the lower plate.

REMARKS

INTRODUCTION:

In accordance with the foregoing, the specification and claims 1, 3 and 7-9 have been amended. New claims 11-15 have been added. Claims 1-15 are pending and under consideration.

OBJECTIONS TO THE DRAWINGS:

It is respectfully submitted that the present amendments to the drawings, specification and claims overcome the objection.

OBJECTION TO THE TITLE:

In the Office Action, at page 2, the title was objected to as not being descriptive. In view of the proposed amended title set forth above, the outstanding objection to the title should be resolved.

It is respectfully submitted that the present amendments to the specification and the title overcome the objections.

REJECTION UNDER 35 U.S.C. §112:

Claims 8-10 are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is respectfully submitted that the present amendments to claims 8-10 overcome the rejection.

REJECTION UNDER 35 U.S.C. §102:

Claims 1-7 are rejected under 35 U.S.C. §102(e) as being anticipated by Barabi et al.

Using independent claim 1 as an example, this claim recites "said tubular member having an end portion detachably engaging with the first plunger, and a portion slidably contacting with another one of the first and the second plungers." Fig. 2, Fig. 4 and Fig. 6 of the present invention illustrate that each plunger 21, 22 and 23 merely abuts, for example, an outer end surface of the tubular member 25, so that the plunger can be replaced with another type of plunger. Therefore, the contact pin of claim 1 can be used for various types of electrical parts having various shapes of terminals by only replacing the first plunger with another type of plunger.

In contrast, the contact pin of Barabi et al. has a tubular member 51 and a plunger member 21. An end portion of the tubular member 51 of Barabi is bent in an inward direction so that the plunger member 21 is engaged unseparably with the tubular member, as shown in Fig. 3A and 3B of Barabi. That is, the plunger member 21 is not separable from the tubular member 51.

Claim 3 depends from claim 1 and recites "said first plunger is replaced with a replacement first plunger having a contact portion having a different shape from the first plunger in accordance with a shape of the terminal of the electrical part." This is achieved because the size of the area in which the lower side through holes are formed can be larger than the area in

which the upper side through holes are formed. Therefore, by only changing an upper plate to another upper plate having a different number of through holes, various IC packages having different sizes, numbers of terminals and the like can be utilized. Thereby almost all parts of the socket can be commonly used according to claim 3.

Barabi does not disclose these features. Instead, the number of upper through holes and lower through holes is the same, as shown in Fig. 2A and 2B. That is the size of the area in which the lower side through holes are formed is the same size as the area in which the upper side through holes are formed. Thus, this reference does not achieve the advantages of claim 3.

NEW CLAIMS:

New claims 11-14 depend from independent claim 1 and are therefore distinguishable over the Examiner's reference. New independent claim 15 recites "preparing a plurality of the upper plates each having the seating portion of a different height," and is therefore patentable over the cited reference.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Serial No. 10/075,764

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 3-10-03

By: 

Michael J. Badagliacca
Registration No. 39,099

700 Eleventh Street, NW, Suite 500
Washington, D.C. 20001
(202) 434-1500

March 10

Rajina K. Cella
3/10/03

United States Postal Service a
addressed to: Commis
Washington, D.C. 2

03

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE TITLE:

Please **AMEND** the title in its entirety and replace with the following:

--SOCKET FOR ELECTRICAL PARTS HAVING SEPARABLE PLUNGER--

IN THE SPECIFICATION:

Please **AMEND** the paragraph beginning at page 8, line 12, with the following paragraph:

--A number of such lower side through holes 16a are formed in [a] an arrangement range W1 which is wider than [the formation range of each] an arrangement range W2 of the upper side through holes 17a, 18a and 19a, as shown in Fig. 1, Fig. 3 and Fig. 5.--

IN THE CLAIMS:

Please **AMEND** claims 1 and 3-9 in accordance with the following:

1. (ONCE AMENDED) A socket for an electrical part comprising:

a socket body; and

a contact pin which is provided for the socket body and through which an electrical part having a terminal and a printed circuit board are electrically connected,

said socket body having a lower plate to be mounted to the printed circuit board and an upper plate which is disposed above the lower plate and on which the electrical part is to be mounted, wherein said upper plate has a seating portion on which the electrical part is placed in a contacting manner,

said lower plate and said upper plate [is exchanged with one having a seating portion of different height] being formed with a plurality of lower side through holes and a plurality of upper side through holes, respectively, the contact pin being inserted into a pair of the lower and the upper side through holes,

said contact pin comprising:

a first plunger electrically connected to the terminal of the electrical part,

a second plunger electrically connected to the printed circuit board,

a tubular member disposed between the first and the second plungers, and

an elastic member disposed between the first and second plungers to urge the first and second plungers in opposite directions,

said tubular member having an end portion detachably engaging with the first plunger, and a portion slidably contacting with another one of the first and the second plungers.

3. (ONCE AMENDED) A socket for an electrical part according to claim 1, wherein said [contact pin comprises a first plunger electrically connected to the terminal of the electrical part, a second plunger electrically connected to the printed circuit board, a tubular member disposed between the first and second plungers and an elastic member disposed therebetween, said tubular member having one end abutting against one of the first and second plungers and another end slidably contacting another one of the first and second plungers, said elastic member having an urging force for urging the first and second plungers in directions apart from each other, and] said first plunger is replaced with a replacement first plunger having a contact portion having a different shape [which is changed] from the first plunger in accordance with a shape of the terminal of the electrical part.

4. (ONCE AMENDED) A socket for an electrical part according to claim [3] 1, wherein said contact portion has a mount shape to which a terminal having a land shape

contacts.

5. (ONCE AMENDED) A socket for an electrical part according to claim [3] 1, wherein said contact portion has a V-shaped groove to which a terminal having a solder ball shape contacts.

6. (ONCE AMENDED) A socket for an electrical part according to claim [3] 1, wherein said contact portion has a plural mount-shape to which a terminal having a pin shape contacts.

7. (ONCE AMENDED) A socket for an electrical part according to claim [3] 1, wherein said elastic member is a coil spring disposed at an inside of the tubular member.

8. (ONCE AMENDED) A socket for an electrical part [according to claim 1,]
comprising:

a socket body; and

a contact pin which is provided for the socket body and through which an electrical part having a terminal and a printed circuit board are electrically connected,

said socket body having a lower plate to be mounted on the printed circuit board and an upper plate which is disposed above the lower plate and on which the electrical part is mounted, wherein said upper plate has a seating portion on which the electrical part is placed in a contacting manner,

[wherein] said lower plate and said upper plate [are] being formed with a plurality of lower side through holes and a plurality of upper side through holes, respectively, [into which] the contact [pins] pin [are] being inserted into a pair of the lower side and the upper side through holes, said plurality of lower side through holes [being] being formed in an arrangement range

wider than that of the plurality of upper side through holes.

9. (ONCE AMENDED) A socket for an electrical part according to claim 8, wherein said upper plate [is provided with] comprises:

an upper plate body to which said plurality of upper side through holes are formed and on which the electrical part is mounted, and

a guide portion for guiding a peripheral edge portion of the electrical part.